

THE AERO CLUB DINNER.

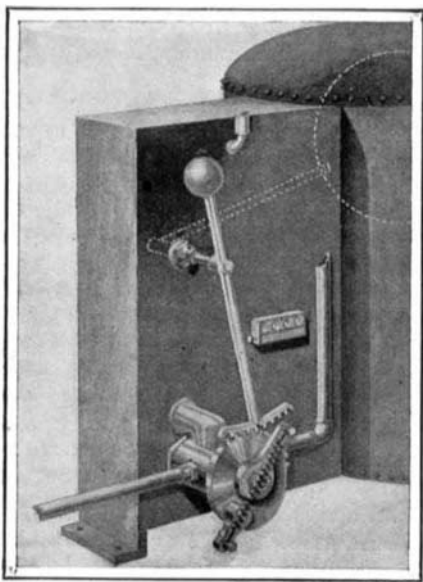
The first dinner of the Aero Club of America was held at the St. Regis Hotel on the evening of March 14. One of the principal events of the evening was the reading of a letter from the Wright Brothers, in which they gave their ideas on the subject of the large prize for an aeroplane flight to be offered in the near future by the club. The Wrights thought that this prize should be not too difficult of attainment, in order that it should spur on inventors to try and win it. They also stated that they hoped to make some more flights this year, and that if they did, although the flights might not be in public, they would "effectually remove all question that the flying art originated in America."

Another interesting feature of the evening was a description given by E. B. Bronson of a dirigible balloon made of three parallel cigar-shaped gas bags in 1863 by Dr. Solomon Andrews, of Perth Amboy, N. J. This machine, propelled at high speed by some mysterious power, is said to have flown successfully in September of that year.

Announcement was made of the entries for the Bennett International Balloon Race, as follows: France, 3 balloons; Great Britain, 3; Germany, 3; Spain, 3; Italy, 2; and America, 3. The race this year, on October 19, promises to be very interesting.

STEAM TRAP WITH WATER METER ATTACHMENT.

A steam trap has recently been invented which not only operates in a very efficient manner to discharge the water of condensation from a steam pipe or system, but serves, as well, to measure the quantity of water discharged. The trap comprises a cylindrical tank and a narrow rectangular casing connected thereto. In the tank is a float, which is shown in dotted lines in the engraving. The float rod is secured to a rock-shaft that projects from the casing through a stuffing box. The outer end of the rock-shaft carries an arm provided with a counterweight at its upper end and having, at its lower end, a toothed segment. Meshing with the latter is a segment gear wheel, mounted to rotate freely on the shank of a valve head. The valve, which is of the three-way type, governs both the inlet and the discharge pipes of the trap. A square stem projecting from the valve-head shank carries a short arm, to the outer end of which a spiral spring is secured. The opposite end of the spring is fastened to a pin carried by the segment gear wheel. In operation, as the water of condensation accumulates in the tank, the float rises and, by means of the toothed segment, revolves the gear wheel and with it the pin to which the spiral spring is secured. The valve, however, remains at rest, being held by the spiral spring. When a predetermined level of water is reached, the spring is carried by the revolution of the gear wheel past the center or axis of the valve-head, and it then quickly retracts, turning the valve to close the inlet and open the discharge pipe. As the water pours out of the tank the float falls, and the gear wheel is turned in the opposite direction,



STEAM TRAP WITH WATER METER ATTACHMENT.

carrying the spring past the axis again, but in the opposite direction, and returning the valve quickly to its first position. A counting mechanism is secured to the casing, in position to be struck by the segment arm just before each discharge. As the same measure of water flows out each time, the counter serves as a meter, showing the total quantity of water that has passed through the trap. A patent on this trap has been secured by Mr. Alfred L. Riggs, of Ebensburg, Pa.

A New British Heavy Gun.

The British Admiralty is engaged in the production of a new type of heavy gun to constitute the main aggressive armament of the first-class battleships that are shortly to be laid down in accordance with the

naval shipbuilding programme that has recently been revised. In this class of warship it is probable that the 12-inch weapon will be abandoned in favor of the new and heavier gun that has been projected. The recent gunnery trials with the "Dreadnought" have confirmed the prevailing theories that it is impossible to render this class of warship more powerful by the addition of further 12-inch guns, since the battery as it at present stands represents the maximum number of guns that can be brought to bear in action with any distinct advantage. Consequently, it is realized that to increase the offensive power of the vessel, a new type of gun of greater caliber is essential.

It is stated that the new weapon will be 13.5 inches, of 45 calibers. A weapon of this caliber is already in use upon the "Royal Sovereign," but its design does not coincide with the modern gunnery practice as applied to weapons of this class, since its penetrating power and velocity are less than the present 12-inch weapon, though the weight of the shell is 1,250 pounds as compared with the 850-pound shell fired from the modern 12-inch weapon. The new 13.5-inch weapon will be 50.625 feet in length, and will weigh approximately 85 tons. The main fighting armament will probably number the same as carried on the "Dreadnought," namely, eight, and so disposed that six can fire ahead or astern, and the whole eight brought to bear upon either broadside.

FILTER FOR COFFEE POTS.

Pictured in the accompanying engraving is a filter of very simple and inexpensive design, which is adapted for use in coffee pots to retain the coffee grounds. The filter proper consists of a bag of thin material, such as muslin, which is so mounted that it can readily be removed, cleaned, and replaced in the coffee pot. The filter bag is supported in the coffee pot on a stand consisting of a tubular body, to which three wire legs are soldered. The filter bag fits within the tube, but at the top it is folded outward over the upper edge

Bennett International Aeronautic Cup Race.

The second annual contest will start from St. Louis on October 19th. This contest is open to all kinds of flying machines as well as to free and dirigible balloons, but the contestants must be entered by a club belonging to the International Aeronautic Federation. Each country can have three representatives. The winner is the balloon or flying machine that covers the longest distance. **\$2,500 (Trophy)**



The "Daily Mail" Prize for an Aeroplane Flight from London to Manchester, England, 161½ Miles.

This contest is now open to members of any recognized Aero Club. It is for heavier-than-air machines, preferably aeroplanes. Contestants must start from a point within 5 miles of the "Mail's" London office and land within 5 miles of the Manchester office. More complete rules have not been formulated as yet, but it is probable that the contestants will be allowed to stop and replenish fuel. Santos Dumont has offered a gold medal to the winner, J. N. Griffiths a challenge cup, and the Adams Mfg. Co. \$10,000 provided the entire machine is made in England. "The Autocar" will give \$2,500 more to the winner if a British-built engine is used. "The Car" offered \$25 a mile for every mile covered, with a minimum of 25 miles. **\$50,000**

The "Matin" Prize for a Flight by Any Type of Aerial Craft from Paris to London, 217½ Miles.

\$20,000 of this prize was given by the Paris "Matin," the balance being made up by three patriotic Frenchmen. This prize will be given to the owner of any airship or flying machine, that, propelled by its own power through the air, reaches London within 24 hours from the time it left Paris, the only condition being that the machine be of French construction throughout. The date set for the start of this race is July 14th, 1908, and the second Sundays in August, September and October following if the prize is not won on that day. Stops for replenishment of fuel will be allowed. The point of arrival will be determined by the dropping of a sandbag within a circle 150 feet in diameter. **\$50,000**

"Société des Bains de Mer d'Ostend" Prize for a Flight by Any Type of Flying Machine from Paris to Ostend, 186 Miles.

This contest is open to all, the only condition being that the distance must be covered within 24 hours. Sunday, August 11th, and the Sundays following are the dates set. The Ruinat Père & Fils Prize for the First Aeroplane to fly across the English Channel from Cape Gris-Nez to Dover. **\$40,000**

The Henri Deutsch de la Meurthe Prizes and Trophy for Three Flights Around a 124.2-Mile Circuit.

This trophy is valued at \$2,000. \$4,000 cash will be given annually to the winner each year. The contest is open to members of clubs recognized by the International Aeronautic Federation, and the trophy is to be contested for between March 1st and October 31st. It can be won from the holder only by making the circuit at a higher speed than he made. The third holder of the cup can retain it permanently. **\$2,000 (Trophy) \$12,000**

The Brooklands Automobile Racing Club Prize for a 3-Mile Flight Above the Track.

This prize is open to all. It will be given to the first heavier-than-air machine that makes a circuit of the new Weybridge track at a speed of 10 miles an hour or over and at a height of 40 or 50 feet from the ground. This course is open to experimenters for practice. **\$12,500**

The Deutsch-Archdeacon Prize for an Aeroplane Flight of 1 Kilometer (0.621 mile) in a closed circuit.

This cup was won by Santos Dumont on November 12th last. It must be won two years in succession in order to be retained. **\$600 (Trophy)**

The "Daily Mail" Model Aeroplane Competition.

This competition will be held from the 6th to the 13th of April in the Royal Agricultural Hall, London. The models must not weigh over 50 lbs. complete, and they must fly 50 feet in a straight line with an elevation above ground at the start of 5 feet. Full particulars can be had from the Secretary of the Aero Club, 166 Piccadilly, London, W. 1st Prize, \$560; 2d, \$375; 3d, \$125. **\$1,050**

"The Car" Prize (Annual) for the Longest Flight Made in England With an Airship or Flying Machine.

\$2,500

The Barnum & Bailey Prize for an Aeroplane That Will Fly and Carry a Man.

\$10,000

The "Daily Graphic" Prize for a Flight of One Mile.

\$5,000

The Pepin Prize for a Heavier-than-Air Machine. Conditions not yet announced. **\$200**

The Lahm Cup. Offered by the Aero Club of America to members of any aero club in the world for longest distance above 400 miles covered by balloons or any kind of flying machine in the United States. **\$1,500 (Trophy)**

The Aero Club of America Prize for an Aeroplane Flight. Conditions and prize to be announced later. **\$100,000**

The Frank Hedges Butler Challenge Cup. For the longest distance covered by aeroplanes or balloons starting from London on some date not yet set.

Sir David Solomon's Cup for a Heavier-than-Air Machine.

Lord Howard de Walden Prize for a Heavier-than-Air Machine.

Total **\$315,475**

INTERNATIONAL AERONAUTICAL PRIZES OFFERED UP TO DATE.

of the tube. A cover piece, also of muslin, is laid over the top of the bag, and its edge as well as that of the bag is clamped against the tube by means of a



FILTER FOR COFFEE POTS

snugly-fitting band. In use, ground coffee is placed in the bag, and the latter, with the stand, is then lowered into the coffee pot. Boiling water is now poured into the pot, or it is filled with cold water and then brought to a boil, and the water will percolate through the bag, extracting the strength from the coffee. In cleaning the bag it is only necessary to withdraw the band to release the edges of the bag and cover. The cover is an important feature, in that it admits of the passage of steam through the top of the bag, but prevents the coffee grounds from getting into the pot, as, for example, by the coffee boiling over the top of the bag. The inventor of this improved filter is Mr. Clarence Monroe, of Loveland, Col.